

Adv. Algebra
7-8 Graphs of Radical Functions

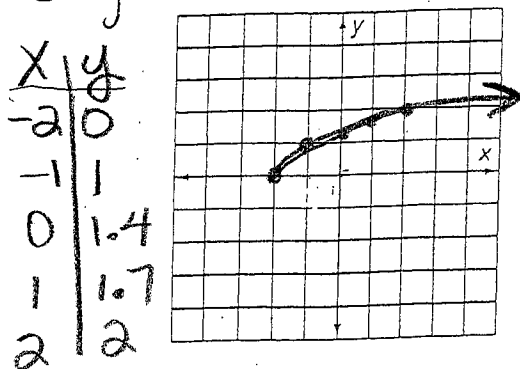
Name _____

Use your graphing calculator to graph each function. Describe the shift or the change that happens each time and make a generalization for h, k and a.

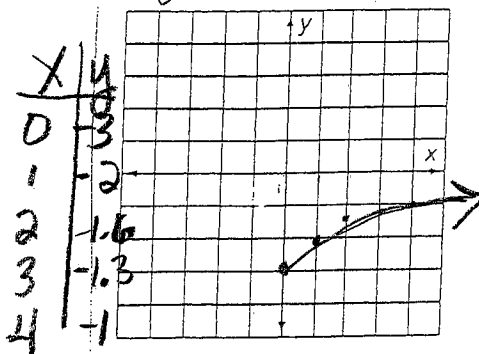
Function	Describe the shift or change
$Y = \sqrt{x}$	
$Y = \sqrt{x} + 2$	
$Y = \sqrt{x} - 2$	
$Y = \sqrt{x} + k$	Describe how k translates \sqrt{x} .
$Y = \sqrt{x-3}$	
$Y = \sqrt{x+3}$	
$Y = \sqrt{x-h}$	Describe how h translates \sqrt{x}
$Y = .5\sqrt{x}$	
$Y = 2\sqrt{x}$	
$Y = a\sqrt{x}$	Describe how a changes the graph
$Y = -2\sqrt{x}$	
$Y = -a\sqrt{x}$	Describe how $-a$ affects the graph.

Graph. (Use t-chart)

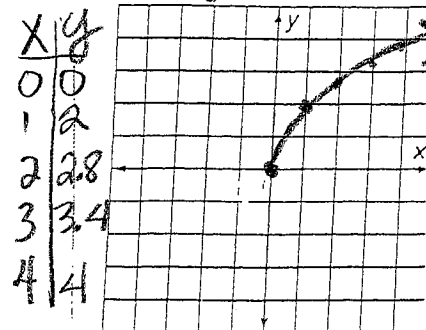
① $y = \sqrt{x+2}$



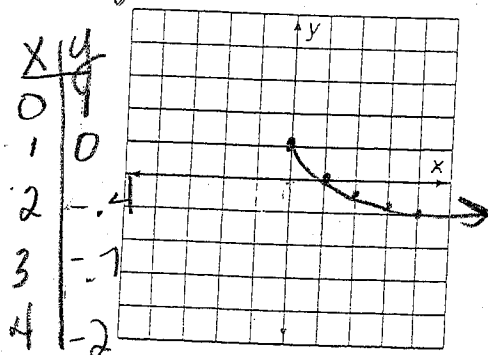
② $y = \sqrt{x} - 3$



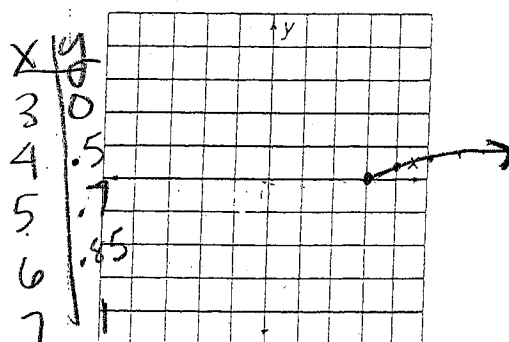
③ $y = 2\sqrt{x}$



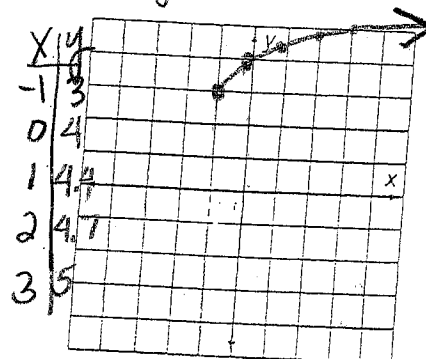
④ $y = -\sqrt{x} + 1$



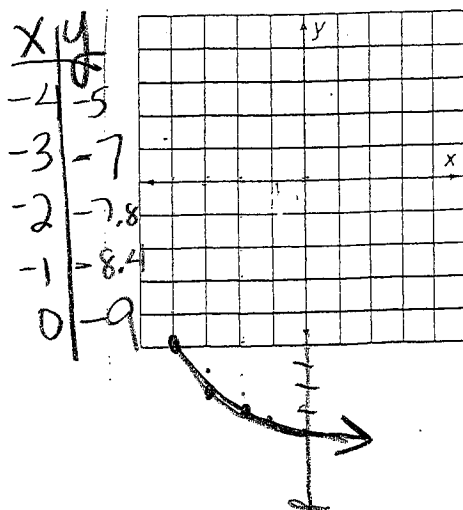
⑤ $y = \frac{1}{2}\sqrt{x-3}$



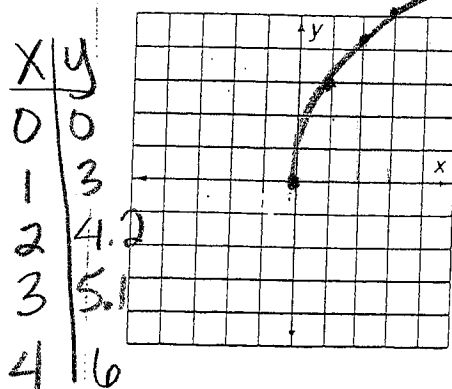
⑥ $y = \sqrt{x+1} + 3$



⑦ $y = -2\sqrt{x+4} - 5$



⑧ $y = 3\sqrt{x}$



⑨ $y = -2\sqrt{x+1} - 2$

